ABSTRACT OF THE DISCLOSURE

A network storage system includes a virtual file system ("VFS"), to manage the files of the network storage system, and a storage center that stores the files. The VFS and the storage center are separated, such that a client accesses the VFS to conduct file system operations and the client accesses the storage center to upload/download files. The client accesses the network storage system through one or more storage ports. The storage center includes a plurality of distributed object storage managers (DOSMs) and a storage cluster that includes a plurality of intelligent storage nodes. The network storage system includes additional storage centers at geographically disparate locations. The network storage system uses a multi-cast protocol to maintain file information at the DOSMs regarding files stored in the intelligent storage nodes, including files stored in disparate storage centers.